

[54] COORDINATE DETECTION SYSTEM

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[57] ABSTRACT

In a coordinate detection system, the interruption of pulsed invisible light beams is used to determine the spatial coordinates of a passive stylus, such as a finger or a pencil, relative to an associated display. The system comprises a rectangular frame which houses two mutually perpendicular linear arrays of infrared light-emitting diodes and two perpendicular linear arrays of associated silicon detector diodes. Driving circuitry sequentially pulses the light emitters in repeating cycles. Associated detecting circuitry responds to the detectors and determines during each cycle the spatial coordinates of the interfering stylus. This spatial information is then coded and transmitted, if necessary. Sequential pulsing eliminates the need for beam collimating structures and lenses and allows for the application of high instantaneous power driving levels to the emitters.

11 Claims, 5 Drawing Figures

